## **Geotechnical Investigation Methods**

## **Drill Rig**

The standard method for geotechnical investigations, a machine is used to drill below the ground surface to determine the presence of rock. This process involves drilling a hole roughly 4 inches in diameter and upward of 30 feet deep.



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## Refraction Microtremor (ReMi)

This alternative method uses seismic vibrations to generate a profile of the subsurface conditions.





Wastewater
Pipe Replacement Update
JANUARY 2020





January 10, 2020

SUBJECT: Surveying and Field Work as Part of Upcoming Wastewater Project

(Little Hope Creek Wastewater Improvement Project)

## Dear Customer:

Charlotte Water is conducting preliminary engineering work in your area for an important wastewater pipe replacement project that will expand the future capacity of the wastewater system in your area.

Beginning in January, subcontractors for Charlotte Water will be surveying and conducting field work along Little Hope Creek in the Sedgefield and Madison Park neighborhoods. This letter is to notify you that crews may be working on or near your property on one or more occasions. During this time, it may be necessary for Charlotte Water and its subcontractors to be on your property to visually confirm the location of some underground utilities. Their activities should not inconvenience you in any way. All field crew are instructed to wear identifying clothing (i.e. companies' logo or a safety vest) to identify themselves.

In addition to personnel, residents could see minor clearing activities in the area, survey stakes/flags, paint markings on the ground and machinery used for geotechnical borings. These borings involve drilling a hole roughly 4 inches in diameter, and upwards of 30 feet deep to determine the presence of rock in the area. In areas inaccessible for the drill rig, the refraction microtremor (ReMi) method will be used (see reverse side). We also ask that residents do not remove the survey stakes and flags as they are critical to completing the design of this project. A list of companies that are involved with this project is included below:

- Black & Veatch International Company
- · Park Construction of NC
- Capstone Civil Group
- · Tidemark Land Services
- Summit Environmental
- · Carolina Wetlands Services
- · Gulf Coast Property Acquisitions

This work is expected to begin in late January and take about three to six weeks to complete. Additional information, including further technical details, can be found on Charlotte Water's website at: www.charlottewater.org. Click on Projects, then Construction.

I am your source of information for this project. Please call me at 704-336-1040 if you have guestions. If we determine that this project will have any direct impact on your property, we will notify you further as the project progresses.

Regands

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